

ABSTRACT

A data-based software type link integrity module is implemented separately in hardware (e.g., using physical gates, using a microcontroller, etc.) and separated from core CPU functionality in a network device, such that the link integrity module may remain powered in a cold power mode (e.g., when core functionality is powered down). The separately powered data-based link integrity module is powered by an auxiliary backup power source. Thus, when in a power down mode (e.g., when in an ACPI defined D3 type cold state) a minimal power source may be used to power the separate link integrity module separate from the power source to the core network device functionality. The separately powered data-based link integrity module may be redundant to a software driver type data-based link integrity module implemented in core memory and enabled or disabled as desired. Alternatively, the separately powered data-based link integrity module may be in lieu of the otherwise conventional software driver implemented in core memory and permanently enabled.